

Abstract

Generally, the present invention provides a device and method for accurately locating a multi-well plate at a plate-support location, e.g., a work surface, of an automated laboratory machine, such that one or more acting members of the machine, such as an array of pipette tips, optical sensors, or the like, can accurately address and operate on the individual wells. Interior and/or exterior surface regions of one or more wells of a multi-well plate are used as the primary plate features engaged by locating structure of the machine. In one particular embodiment one or more upwardly tapered projections extend from a plate-support surface of a plate-handling machine for mating engagement with the exterior surface regions of one or more wells. In another embodiment, the exterior surface regions along one or more well bottoms are engagingly received within bores, or other receiving structure, formed on the plate-support surface of a machine. In a further embodiment, one or more downwardly extending projections depend from an acting-member support, along with the acting members of a machine. Introduction of the projections into some of the wells of a multi-well plate serves to align the acting members with the plate's other wells. A biasing assembly can be used to press together the engaging surface regions of the wells and the locating structures of the machine.